

**REMARKS**

This Application has been carefully reviewed in light of the Office Action mailed June 28, 2004 ("Office Action"). At the time of the Office Action, Claims 1-24 were pending in the application. In the Office Action, the Examiner rejects Claims 1-24. In order to advance prosecution of this case, Applicant amends Claims 1, 7, 14, and 20. Applicant respectfully requests reconsideration and favorable action in this case.

**Section 101 Rejections**

The Examiner rejects Claims 1-24 under 35 U.S.C. § 101 because the language of the independent Claims 1, 7, 14, and 20 raise a question as to whether the claims are directed to non-statutory subject matter. Specifically, the Examiner states that the claims "are directed at a method for interfacing a genetic search algorithm to a web environment without disclosing any computer implemented processing." (Office Action, page 2). Although Applicant believes that all previously pending claims recite statutory subject matter under § 101, to advance this case expeditiously to issuance, Applicant has amended independent Claims 1, 7, 14, and 20 to address the issues identified by the Examiner. For at least these reasons, Applicant respectfully requests that the rejection of the Claims 1-24 under § 101 be withdrawn and the claims allowed.

**Section 102 Rejections**

The Examiner rejects Claims 1-4 under 35 U.S.C. § 102(a) as being anticipated by "Haskell and XML: Generic Combinators or Type-Based Translation" by Malcolm Wallace et al. ("*Wallace*"). For the following reasons, Applicant respectfully requests reconsideration and allowance of Claims 1-4.

Independent Claim 1, as amended, recites:

A method for interfacing a computerized genetic search algorithm to the web environment of the Internet, comprising:  
defining data elements, attributes and rules for use thereof  
for an extensible markup language;

storing the extensible markup language in a document type definition file on a computer;

describing data in a document, on the computer, in a hierarchical format utilizing the stored extensible markup language; and

importing the data in the document to a genetic algorithm comprising a randomized search algorithm to define a data string or an individual in a population of points, the population of points comprising a bit string encoded to represent the data or individual.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P. § 2131. In addition, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claims" and "[t]he elements must be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990); M.P.E.P. § 2131 (*emphasis added*). Whether considered alone or in combination with any other cited references, *Wallace* does not disclose, either expressly or inherently, each and every element of the Claim 1.

For example, Applicant respectfully submits that *Wallace* does not disclose, teach, or suggest "importing the data in the document to a genetic algorithm comprising a randomized search algorithm to define a data string or an individual in a population of points," as recited in amended Claim 1. To the contrary, *Wallace* merely discloses "two complementary approaches to writing XML document-processing applications in a functional language." (*Wallace*, Abstract, page 148). Specifically, the document "is about processing XML using the functional language Haskell." (*Wallace*, § 1.3, page 148). The authors of *Wallace* have found two approaches to address the issue of "how to represent documents, and in particular, how to reconcile the DTD datatype definitions included in XML documents with the data types that can be defined in Haskell." (*Wallace*, § 1.3, page 148). In the first approach, an internal data structure is defined "that represents contents of *any* XML document, independent of all DTDs." (*Wallace*, § 1.3, page 148). In the second approach, definitions for internal Haskell data types are systematically derived to represent the DTD for some XML documents of interest. (*Wallace*, § 1.3, page 149). Accordingly, *Wallace* merely discloses methods for reconciling data types between Haskell definitions and XML

definitions. Because the approaches disclosed in *Wallace* are not applied to a computerized genetic algorithm, Applicant submits that *Wallace* does not disclose, teach, or suggest “importing the data in the document to a genetic algorithm comprising a randomized search algorithm,” as recited in Claim 1. For similar reasons, *Wallace* certainly cannot be said to disclose, teach, or suggest “the population of points comprising a bit string encoded to represent the data or individual,” as also recited in Claim 1. The recited features are completely absent from the disclosure of *Wallace*.

For at least these reasons, Applicant respectfully requests reconsideration and allowance of Applicant’s Claim 1, together with Claims 2-4.


**CONCLUSION**

Applicant has made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clear and apparent, Applicant respectfully requests reconsideration and allowance of the pending claims.

Applicant believes no fees are due. However, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

If there are matters that can be discussed by telephone to advance prosecution of this application, Applicant invites the Examiner to contact its attorney at the number provided below.

Respectfully submitted,  
Baker Botts L.L.P.  
Attorneys for Applicant

  
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Kevin J. Meek  
Reg. No. 33,738  
(214) 953-6680

Dated: September 27, 2004

**CORRESPONDENCE ADDRESS:**

**at Customer No. 45507**

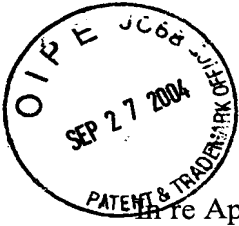
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PATENT APPLICATION  
09/846,158

09-28-04

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Judith A. Johnson  
U.S. Patent Serial No.: 09/846,158  
Filing Date: April 30, 2001  
Examiner: Kelvin E. Booker  
Art Unit: 2121  
Title: EXTENSIBLE MARKUP LANGUAGE  
GENETIC ALGORITHM

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Dear Sir:

**CERTIFICATE OF MAILING BY EXPRESS MAIL**

I hereby certify that the attached Response Pursuant to 37 C.F.R. § 1.111 (10 pages), Baker Botts return postcard (1 postcard), and this Certificate of Mailing are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on this 27th of September 2004 and is addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

*Willie Jiles*  
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